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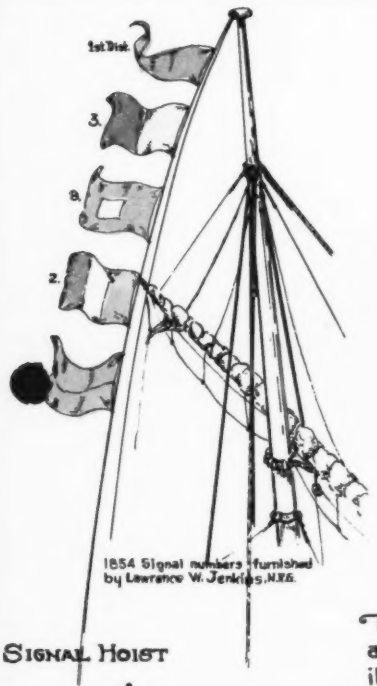
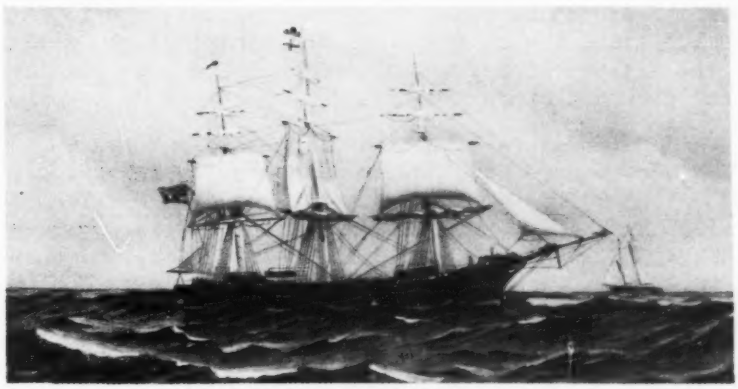


SIGNAL HOIST of "FLYING FISH"



"FLYING FISH" LAYING TO FOR A PILOT
From painting by Fred S. Cozzens, courtesy Richard C. McKay

The Flying Fish and Her Plan

by John Lyman

The lines of the McKay-built clipper ship, which are featured in this issue of the Journal, are part of the plan collection of the Bergen Sjøfartmuseum in Bergen, Norway. A similar plan exists, I believe, in a private collection in this country, but its history seems to be unknown. The Bergen plan, however, is included in one of several collections of ship drawings that were handed down in local shipbuilding families, and it appears to have been brought back to Norway by a member of one of those families, Jens Gran. Jens Gran, born 8 March, 1828, was the son of Herman Gran (1798-1860), one of the leading shipbuilders of Bergen. Jens Gran was sent to America to complete his training as a master shipwright, and he worked in Donald McKay's shipyard in Boston. In all probability he worked on the Flying Fish, as he is stated to have been concerned in the building of several large clipper ships before returning to Bergen in 1854.

Some of the plans in the Bergen collection go back to the time of the American Revolution---when, it is often stated, American shipbuilders were still setting up vessels by eye. Scandinavian shipwrights, however, following in the tradition of the great Fredrik af Chapman, were skilled ship draftsmen. There are some beautiful drawings in the Bergen collection, done in red, black, and green inks, showing complete layouts of brigantines, snows, and sloops of around 1780. These plans had to be sent to Copenhagen for approval before the vessel could be built, so they are far more detailed than most shipyard drawings.

The Curator of the Bergen Sjøfartmuseum is Mrs. Nancy Faegri, wife of Prof. Faegri of the University of Bergen, and last summer she spent several hours of her time going through the plans collection with me. I spotted this "Flying Fish", catalog №1251; but not remembering whether it was available in America, I merely noted the file number. After returning home, and finding it to be worth looking into further, I wrote Mrs. Faegri, who had a tracing made and sent me the ozalid which is now reproduced. For the privilege of seeing this plan, therefore, the Guild is greatly indebted to Mrs. Faegri and the Bergen Sjøfartmuseum.

Even though only the name FLYING FISH appears on this plan, there is no doubt that this is McKay's FLYING FISH of 1851. The drawing is obviously in English or American feet, to the scale of 1/8" to a foot; the sections are spaced 15 feet, the water lines 2½ ft., and the buttocks 5 ft. On this scale, the length on deck of 210 ft. agrees exactly with that of the FLYING FISH, and the deadrise, bow and stern angles, and other particulars given in the Boston "Atlas" description all agree with the plan.

Designed and built by Donald McKay at East Boston, Mass., the FLYING FISH was launched in September, 1851. On 4 November of that year she was written up in a two-column story on the front page of the Boston "Atlas", which is reprinted in full in this issue of the "Journal", and the following day she was registered at the Boston Custom House as a ship of 1505 tons, 207' x 39'6" x 22', owned by George M. Sampson and Lewis W. Tappan, co-partners of Boston, and commanded by Edward C. Nickels.

It should be observed that the lines are to the inside of the planking from the stem to the stern timbers (not including stern post or stem) measured along the curve of the deck, so that the thicknesses of the garboard strakes, bottom planking, wales and plankshear should be added at the appropriate locations in taking off dimensions for a model. Also, the 44 feet from the center of the mizzenmast to the sternpost, given in the "Atlas" story, appears actually to have been measured to the intersection of the deck and stern timbers.

Howe and Matthews in "American Clipper Ships" point out that although most of FLYING FISH's runs were made during unfavorable seasons, her sailing record is phenomenal. Only 18 clipper ships made the run from New York or Boston to San Francisco in under 100 days; FLYING CLOUD is first in this sweepstakes with two 89-day passages, then ANDREW JACKSON and SWORD FISH in 90 days each, and then FLYING FISH and GREAT REPUBLIC in 92 days each. For the best two passages, FLYING CLOUD is first with an average of 89 days, ANDREW JACKSON second with 95½, and FLYING FISH third with 96. For the average of the best three passages, FLYING CLOUD leads again with 94-1/3 days, ANDREW JACKSON is second with 98 days, and FLYING FISH third with 99½.

Here is a summary of FLYING FISH's voyaging under Sampson & Tappan's house flag:

YEAR	LEFT	ARRIVED	DAYS	YEAR	LEFT	ARRIVED	DAYS
1851	Boston						
1852		San Francisco	100¼	1855			
	San Francisco	Manila	51		San Francisco	Manila	57
	Manila	New York	123		Manila	Boston	86
	New York				Boston	San Francisco	105
1853		San Francisco	92	1856	San Francisco	Manila and Padang	--
	San Francisco	Manila	40		Padang	Boston	105
	Manila	Boston	107		Boston	San Francisco	106
	Boston			1857	San Francisco	Manila	42
1854		San Francisco	113		Manila	Boston	117
	San Francisco	Manila	42		Boston		
	Manila	New York	109	1858		San Francisco	114
	Boston				San Francisco	Hong Kong	--
1855		San Francisco	109		Hong Kong	San Francisco	46
					San Francisco	Hong Kong	--

She loaded tea at Foo Chow for New York, but in November 1858 got ashore at the mouth of the Min River while leaving port and was aground for two days, receiving considerable damage. She was therefore condemned and was sold to a Spanish firm of Manila, who had her rebuilt at Whampoa. Renamed EL BUENO SUCESO, she traded for many years between Spain and the Philippines and finally foundered in the China Sea.

These lines, with the allowance for planking already mentioned, and the "Atlas" description should be sufficient to build an accurate model of the FLYING FISH. Since she followed the FLYING CLOUD off McKay's ways by only six months, she probably closely resembled that vessel in any construction details that the "Atlas" reporter failed to specify, but there appears to be mighty little that he overlooked.

THE "FLYING FISH" AND THE CLIPPER SHIP RACES

by RICHARD C. McKAY
Author of "Some Famous Sailing Ships and Their Builder-Donald McKay".

The "Flying Fish" became more noted as a contestant in famous ocean races than any one of Donald McKay's many clippers. On her maiden passage it was arranged that she should race the "Swordfish" around the Horn to San Francisco. Not only were large sums laid on the result, but the respective merits of Boston and New York were at stake - this virtually was a test of rivalry between William H. Webb and Donald McKay and a contest between the two cities as shipbuilding and transportation centers. These two extreme clippers were to sail over the great racecourse of the ocean; it is fifteen thousand miles in length. Some of the most glorious trials of speed and of prowess that the world ever witnessed have taken place over it. Here the American (wooden) clipper ship of the fifties, the noblest work that has ever come from the hands of man, has been sent, propelled by wind alone and guided by the lights of science, to contend with the elements, to outstrip steam and astonish the world!

From the late Captain Clark's "Clipper Ship Era", we take the liberty of quoting: 'The "Flying Fish" sailed from Boston November 11, 1851, and on the same day the "Swordfish" passed Sandy Hook. Captain Nickels of the "Flying Fish" and Captain Babcock of the "Swordfish" were both young and skilful commanders, and it was believed by their friends that each would send his ship along at her utmost speed. The "Flying Fish" made an excellent run of 19 days to the equator, leading the "Swordfish" by four days. From the equator to 50° S., the "Flying Fish" was 26 and the "Swordfish" 22 days, so that they passed that parallel on the same day. They raced round Cape Horn, part of the time side by side, the "Flying Fish" making the run from 50° S. in the Atlantic to 50° S. in the Pacific in 7 and the "Swordfish" in 8 days. From this point the "Swordfish" came up and steadily drew away. She made the run to the equator in 19 days, leading the "Flying Fish" by 3 days, and from the equator to San Francisco in 20 days, gaining on this stretch another 3 days, and arrived at San Francisco February 10, 1852, after a splendid passage of 90 days, 16 hours from New York. The "Flying Fish" arrived on the 17th, or 98 days from Boston.'

From San Francisco the "Flying Fish" sailed to China, but like most of Donald McKay's powerful sailers she did better in the Californian trade. She reached New York, however, in time to win the most celebrated and famous race that has ever been run off upon a trackless waste of ocean thousands of miles long - dependent alone on the fickle winds of heaven to waft her along. Yes, and against one of the finest fleets of clippers that ever sailed the seas! American Clipper ship racing had become close and exciting!

On the occasion of the "Flying Fish's" second ocean race to San Francisco she was in competition with several other first class clippers, and the following account is written by Lieutenant M. F. Maury, than whom no man ever presented the world with such beneficial results for the improvement of commerce and navigation. Navigators were beginning fully to reap the benefit of Maury's researches, when four splendid American clipper ships put to sea from New York - all bound for California.

They were ably commanded, and, as they passed the bar at Sandy Hook, one by one, and at various intervals of time, they presented really a most magnificent spectacle. The names of these ships and their masters were the "Wild Pigeon", Captain Putnam; the "John Gilpin", Captain Doane; the "Flying Fish", Captain Nickels, and the "Trade Wind", Captain Webber. Like steeds that know their riders, they were handled with the most exquisite skill and judgment, and in such hands they bounded out upon the "glad waters" most gracefully. Each, being put upon her mettle from the start, was driven, under the seaman's whip and spur, at full speed over a course that it would take them three long months to run.

The "Wild Pigeon" sailed October 12; the "John Gilpin", October 29; the "Flying Fish", November 1; and the "Trade Wind", November 14. All ran against time; but

the "John Gilpin" and the "Flying Fish" for the whole course, and the "Wild Pigeon" for part of it, ran neck and neck, the one against the other, and each against all. It was a sweepstake with these.

The two foremost reached the equator on the 13th of January, the "Fish" leading just twenty-five miles in latitude, and crossing in 112° 17'; the "Pigeon" forty miles farther to the east. At this time the "John Gilpin" had dropped two hundred and sixty miles astern, and had sagged off several degrees to the westward.

Here Putnam, of the "Pigeon", again displayed his tact as a navigator, and again the fickle winds deceived him: the belt of northeast trades had yet to be passed; it was winter; and by crossing where she did she would have an opportunity of making a fair wind of them, without being much to the west of her port when she should lose them. Could she have imagined that, in consequence of this difference of forty miles in the crossing of the equator, and of the two hours' time behind her competitor, she would fall into a streak of wind which would enable the "Fish" to lead her into port one whole week? Certainly it was nothing but what sailors call "a streak of ill luck" that could have made such a difference.

But by this time "John Gilpin" had got his mettle up again. He crossed the line in 116° - exactly two days after the other two - and made the glorious run of fifteen days thence to the pilot grounds of San Francisco.

The "Flying Fish" beat; she made the passage in 92 days and 4 hours from port to anchor; the "Gilpin" in 93 days and 20 hours from port to pilot; the "Trade Wind" followed, with 102 days, having taken fire, and burned for eight hours on the way. The "Wild Pigeon" had 118.

The result of this race may be taken as an illustration as to how well navigators were then brought to understand the winds and the currents of the sea.

On her next passage, Boston to San Francisco, the "Flying Fish" took 109 days, and late in the same year, 1855, she made another run in 105 days. She was afterwards engaged in various trades until 1857, when she made her last trip around the Horn, arriving at San Francisco in 100 days from Boston.

From the Letters of Richard C. McKay
Author of "Some Famous Ships and Their Builder - Donald McKay"

> "Now, having arrived at that advanced stage in life where the pros and cons have duly assimilated unto themselves, your letter was no surprise, but pleased me, especially with the respect to the discovery of the lines of my grandfather's ship at Bergen, Norway... Sending you some pages of manuscript which you may use....Would like to see a copy of your publication NAUTICAL RESEARCH JOURNAL and a few lines reciting something interesting and true, anent your Guild. Having devoted many years to nautical research, plus-- would appreciate knowing more of the scope of your work, and/or hobby."

Thanks.

Signed - Richard C. McKay

THE NEW CLIPPER SHIP FLYING FISH, OF BOSTON
From the Boston Atlas, November 4, 1851.

This is the fourth clipper which Mr. McKay has built during the past year, and all of them may be regarded as experiments, for they bear little resemblance to other vessels, or to one another. The "Stag Hound", the first, has round lines, and 40 inches dead rise at half floor; the "Flying Cloud" concave lines, and 30 inches dead rise; the "Staffordshire, though fuller in the ends than the others, also has hollow lines, but only 20 inches dead rise, and the "Flying Fish" is the sharpest of all in the ends, though her bow is not so long as either that of the "Flying Cloud" or the "Stag Hound", and her dead rise is but 20 inches. All these vessels are timbered round the sterns and planked up flush to the covering board; but as will be seen by the variations in the angles of their floors, they are all of a different model. To this variation, which is peculiar to all our scientific ship-builders, may be attributed the matchless speed of our ships. Mr. McKay is one of those who believe that a perfect model for speed, with fair carrying qualities, has not yet been discovered, and hence, in every ship he designs, he tries to make some improvement. The "Flying Fish" is the embodiment of his idea of swiftness, with good stowage capacity. She registers 1566 tons, and stows a very large cargo for her register. The variation in the angle of her bottom and the form of her ends gives her greater capacity, and more buoyancy; and as her bow, towards the extreme, is even sharper, she is expected to sail as fast as the "Flying Cloud".

The "Flying Fish" is 202 feet long on the keel, 210 feet between perpendiculars on deck, and 220 feet over all. Her extreme breadth of beam is 40 feet, and is precisely at the centre of her load displacement line; the angle of her bow at the same line is 17 degrees, and her stern 20 degrees, and her whole depth at the main hatchway is 22 feet including 7 feet, 10 inches height of between decks; but as she is carried up boldly forward, her depth at the fore hatchway is a foot more. Her sheer is about 3 feet, and the rounding of her sides about 12 inches. In outline she is plain but beautiful. The representation of a flying fish for a head, neatly carved and burnished with gold and green, is her only ornament on the extreme, for she has neither head nor trail boards, nor even chocks around the hawseholes, nor is the bow lumbered with rigging, for all her head stays lead in-board and set up under the topgallent forecastle. Her name is carved into the monkey bulwarks along the curve of her bow, and is gilded, and the ends of her cat-heads are also ornamented with gilded carved work. Her bow, as already remarked, rises boldly, and is most beautiful in its form and outline. The moulding of her planksheer is carried around the stern, and the run planking is carried up to it. She is three degrees fuller on the load line aft than forward, but when launched she drew 1 foot more by the stern than the bow; but still her run is very clean, and faultless in form. A beautiful arch of carved work, and her name, etc., ornament the stern.

She is sheathed with yellow metal up to 18½ feet forward, and to 19 feet aft; the rest of her hull is black outside - a color peculiar to clippers and the clergy. Inside her bulwarks, etc., are painted pearl color, and the waterways blue.

She has a topgallant forecastle the height of the main rail, and in its after wings are companions, which lead to the sailors' quarters below; and before the companions are water closets, and along the sides, lockers, etc. The accomodations for the crew occupy the angle of the bow, are lofty, well lighted, and ventilated.

Abaft the foremast is a house, 33 feet long, 15 wide, and about 7 feet high amidships. It contains the galley, sleeping quarters for the cook, a sail-room, store-room, and aft, quarters for ten or twelve boys - the juveniles of her crew, and state-rooms for her petty officers.

She has a trunk cabin, built into a half poop-deck, with ample steering room aft, and good gangways. She has two cabins. The first contains three state-rooms,

the pantry, and a bread locker, and is neatly painted and ornamented. The after cabin contains six state-rooms, and a water closet, with a recess on each side, and a companion, which leads to the deck aft. It is splendidly finished, with mahogany, rosewood, etc., has a large centre table, sofas in the recesses, and mirrors, which multiply its beauties at every turn. The space abaft, under the poop, is a store-room, with a skylight over it, which also answers for a hatchway; and the space along the wings in the officers' and steward's rooms, are fitted with drawers, suitable for stores of various kinds.

Her accommodations forward and aft are all that could be desired for safety or comfort, and correspond well with her other arrangements, leaving ample deck room for working ship.

She has a strongly secured patent windlass, and Crane's patent chain stoppers, which, by the way, ought to be adopted in every ship. They are simple in their design, economical in their cost, and of the highest utility in saving every link of chain as it is hove in. They are secured to a breast-hook close inside of the hawse-hole, and the chain passes over an iron ridge, and every link as it is hove in is nipped by a paul which falls upon it, consequently its fleeting or surging upon the windlass will not lose a single link. It supersedes entirely the use of the devil's claw. When the chain is required to be paid out, the paul is triced up out of the way, leaving fair scope for running.

She has two beautiful mahogany capstans, brass mounted, one on the topgallant forecastle, the other on the quarter deck, Litchfield's patent pumps, and Reed's patent steering apparatus. Abaft the mainmast she has a cylindrical iron tank, nearly her whole depth, and capable of holding 5000 gallons of water.

She has five boats of the most approved models, either for braving a heavy sea or landing in the surf. Her ground tackle in weight and length comes up to the highest requirements of Lloyd's. In every detail of her furniture no expense has been spared to make her perfectly complete.

As the above will convey a fair idea of her hull, in its outline, and some of its appointments, we will now give the leading details of her construction. Her keel is of rock maple and oak, in three depths, which combined, moulds 3 feet 2 inches, and sides 16 inches. The floor timbers are moulded 18 inches, and sided from 10 to 12, and over them are two depths of midship keelsons, each 15 inches square and alongside of these are sister keelsons 14 inches square. The floor timbers are bolted alternately through the first keelson and the keel, so that there is an inch and a quarter bolt through every floor timber and the keel. The upper keelson is bolted through every navel timber -- the bolts driven blunt into the keel, within three inches of its base. The sister keelsons are bolted horizontally through each other and the lower depth of the midship keelson,and diagonally through the navel timbers into the keel. The ceiling on the floor is $4\frac{1}{2}$ inches thick, and over the first futtocks are two bilge keelsons, each 14 by 15 inches. Above these there are four strakes of 10 by 14 graduated to 8 inches thickness, which continues the same in substance up to the deck. To avoid repetition, we may as well state, once for all, that she is square fastened throughout, from the keelsons to the covering-board, the fastening varying from $1\frac{1}{4}$ inch to 7/8 of an inch. Under the lower ends of the hanging knees is a stringer of 14 by 12 inches. The hanging and lodging knees in the hold are of oak, and the former have 18 bolts and 4 spikes in each, and the latter meet and scarph in every berth, and are closely bolted. She has 4 oak pointers forward, and the same number aft, and all are filled in with hooks. Some of the pointers extend nearly 30 feet on each side, along the skin, and none of them are less than 12 inches square, except where they taper at the ends. The hold stanchions are 10 inches square, kneed above and below, in the wake of the hatchways, and elsewhere they are clasped with iron to the beams and keelson, and bolted through both. Her deck beams are of Southern pine -- those under the lower deck are 15 by 16 inches, amidships,

and those under the upper deck 10 by 16.

The between decks waterways are 15 inches square, the standing strake over them 10 by 16, and that inside of them 9 by 12, closely bolted vertically and horizontally. The ceiling above is 5 inches thick. Her ends in the between decks are spanned by massive hooks, alternately bolted from both sides, that is, from the inside to the outside, and vice versa. The between decks hanging knees, like those below, have in the body of the vessel 18 bolts and 4 spikes in each, and the stanchions are turned and secured in the usual style.

Her upper deck waterways are 12 inches square, with two 4½ inch strakes inside of them, let into the beams below. The lower deck is of hard pine, 3½ inches thick, and the upper deck of white pine of the same substance.

Her garboards are 7 inches thick, let into the keel, and are bolted through it and each other, and upward through the timbers. The bottom planking is 4½ inches thick, and her wales, which are 6 by 7 inches, are carried up flush to the plank-sheer. Her treenails, bilge and butt bolts, have been driven with more than ordinary care. Her plankshеer and main rail are each 6 inches thick, and the latter is strengthened by a 5 inch rack rail, which extends from the bluff of the bow to the turn of the stern.

Her bulwarks are 4½ feet high, amidships, surmounted by a monkey rail of 16 inches and the poop is protected by a rail supported on turned stanchions. Her bulwarks are neatly tongued and grooved, and her sides are smooth as glass, the planking fair and regular, and her outline, as a picture, faultlessly beautiful.

Her frame is mostly of white oak, and her planking and ceiling of hard pine. She is seasoned with salt, has air ports below, ventilators along the line of her plank-sheer, and Emerson's corresponding ventilators forward and aft. In materials and fastening, she is second to no ship of her size, and in workmanship and finish, she has no superior.

She is a full-rigged ship, and her masts rake alike, viz., 1¼ inch to the foot. The distance from the stem to the centre of the foremast is 52, thence to the main-mast 62, thence to the mizzenmast 52, and thence to the sternpost 44 feet. The following are the dimensions of her masts and yards:

MASTS

	Dia.	Length	Mast Heads		Dia.	Length	Mast Heads
Fore	38"	82'	14'	Royal	12"	18'	0'
Top	18"	46'	8'	Skysail	10"	14'	7' pole
Topgallant	13"	24'	0'	Mizzen	26½"	78'	13'
Royal	11"	16'	0'	Top	15"	38½'	7½'
Skysail	9"	12'	6' pole	Topgallant	12"	21'	0'
Main	40"	88'	15'	Royal	10"	14'	0'
Top	19"	49½'	10'	Skysail	8"	10'	5' pole
Topgallant	14"	27'	0'				

YARDS

	Dia.	Length	Yard Arms		Dia.	Length	Yard Arms
Fore	21"	70'	4½'	Royal	10"	39'	2½'
Top	16½"	55'	5'	Skysail	8"	31'	1½'
Topgallant	12"	41'	3'	Crossjack	16½"	59'	4'
Royal	9"	32'	2'	Missentop-sail	13"	44'	4½'
Skysail	7"	25'	1½'	Topgallant	10½"	34'	2½'
Main	28½"	80'	4½'	Royal	8"	26'	2'
Top	17½"	64'	5'	Skysail	6½"	20'	1¼'
Topgallant	13"	49'	3½'				

The bowsprit is 28 inches in diameter, 18 feet outboard and 27 inboard, with two sets of bitts; jibboom 18 inches in diameter, divided at 20 and 15 feet for the two jibs, with 5 feet end; spanker boom 58 feet, gaff 40 feet, including 5 feet end; fore and main spencer gaffs, each 24 feet long. Her fore and main masts are fished on every square, and closely hooped, and the fishes extend two feet below the lower deck partners. No ship belonging to this port has such massive lower masts. A glance at the length of her mast-heads, and the diameters of her topmasts, will show that she is unrivalled in her sparring. Her yards, too, are stout in proportion, and are secured in the first style of workmanship. Instead of cheeks to her topgallant yards she has regular iron parrals, similar in design to those of the topsail yards; and she has double topsail ties and halliards. Her topgallant, royal and skysail masts are of single spars. Her mast-heads are crowned with gilded balls and spires; her yards are black, the booms bright and her lower masts white.

Her heavy standing rigging is of four stranded, patent rope, made to order of the best Russia hemp, and varies from 10½ to 8 inch. The running rigging is principally of Manila hemp. Her iron work is the same as that in general use, but stout in proportion to the other details of her rig. She has chain double bobstays and bowsprit shrouds; chain martingale stays and guys, chain topsail sheets and ties, and iron trusses and futtock rigging.

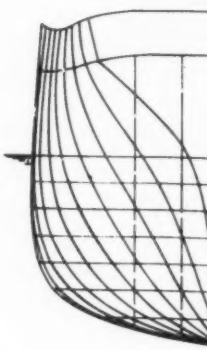
Her fore stays set up to the knight heads, and all her other head stays lead through the bows and set up inboard. The main stays set up to the bitts before the foremast, and the main topmast stays in the fore top. Her lower rigging sets up with dead eyes on the line of the main rail, outside of the monkey rail, and the topmast rigging upon the ends. She has all the fancy sails peculiar to a clipper, such as royal studdingsails, staysails, water sails, a ringtail, etc., and 8250 yards of canvass in a single suit; and if her standing rigging is as good as it appears to be, we apprehend no danger from her being crippled in her spars, for she is the best fitted out ship aloft belonging to this port. Her masts and yards are stouter in the diameters, than those of the largest clippers belonging to New York. Their positions and proportions are beautiful, and fill the eye of the observer with admiration. Her sails when set will make a glorious display. The leaches of the square sails will form a continuous line from the head earrings of the skysails to the clews of the courses, and her fore and aft sails will set like boards. The sails were made by Mr. Porter, of East Boston, and she was rigged by Capt. Brewster, of the same place. Mr. J. W. Mason executed her ornamental work, and Mr. Mendum was her blacksmith. All employed upon her have done their work well.

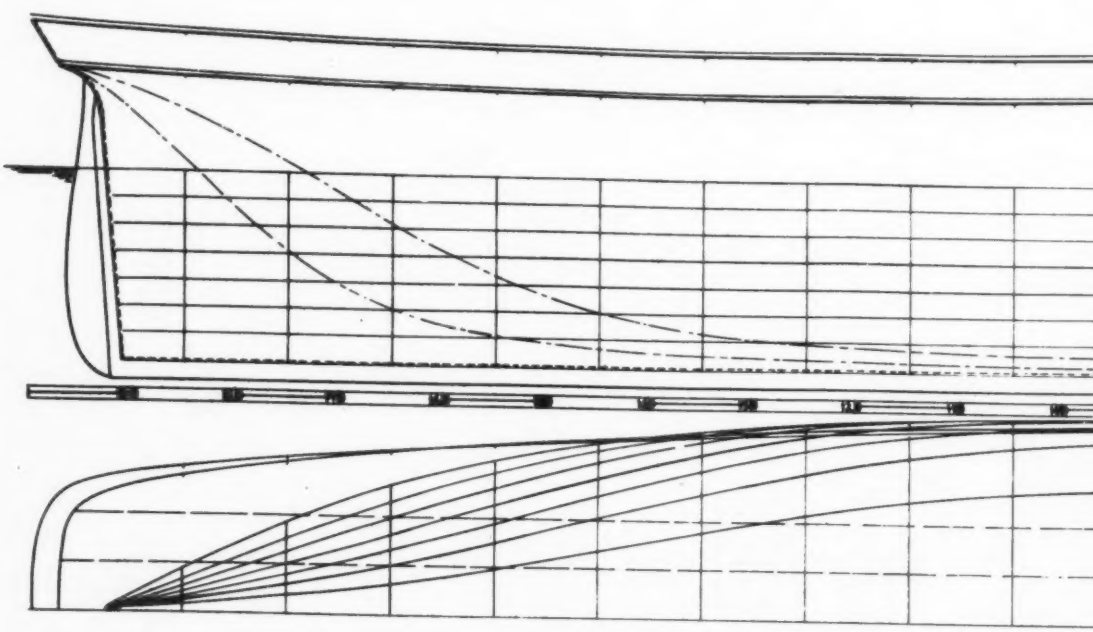
She was designed in all her details and built by Mr. McKay at East Boston; and he confidently expects that she will sail as fast as the Flying Cloud, if not faster. Her commander, Capt. Edward C. Nickels, a gentleman of long tried experience and intimately acquainted with the California and China trades, superintended her construction and equipment. No man knows better how to handle a ship, and as he has had the Flying Fish fitted out precisely as he wanted her, he will be expected to make her astonish the swiftest New Yorkers.

Messrs. Sampson & Tappan, of this city, own her. She is now laden, and will sail in a few days for San Francisco. Good luck to her, and may she prove to be the swiftest ship afloat.

The Slop Chest (too late to classify)

We have twelve complete year's copies of Mariner's Mirrors, the Journal of the Society for Nautical Research. Back numbers as they have them cost now 10s-6d. Our set on this basis would cost 24 pounds or at exchange - $67.68 from the Society. We are willing to let any Nautical Research Guild member have this run for $45.00 or offer. The numbers make up Volumes 17-28 inclusive. From Will H. Honey and H. V. Evans, London. Send all correspondence to the Guild Secretary.





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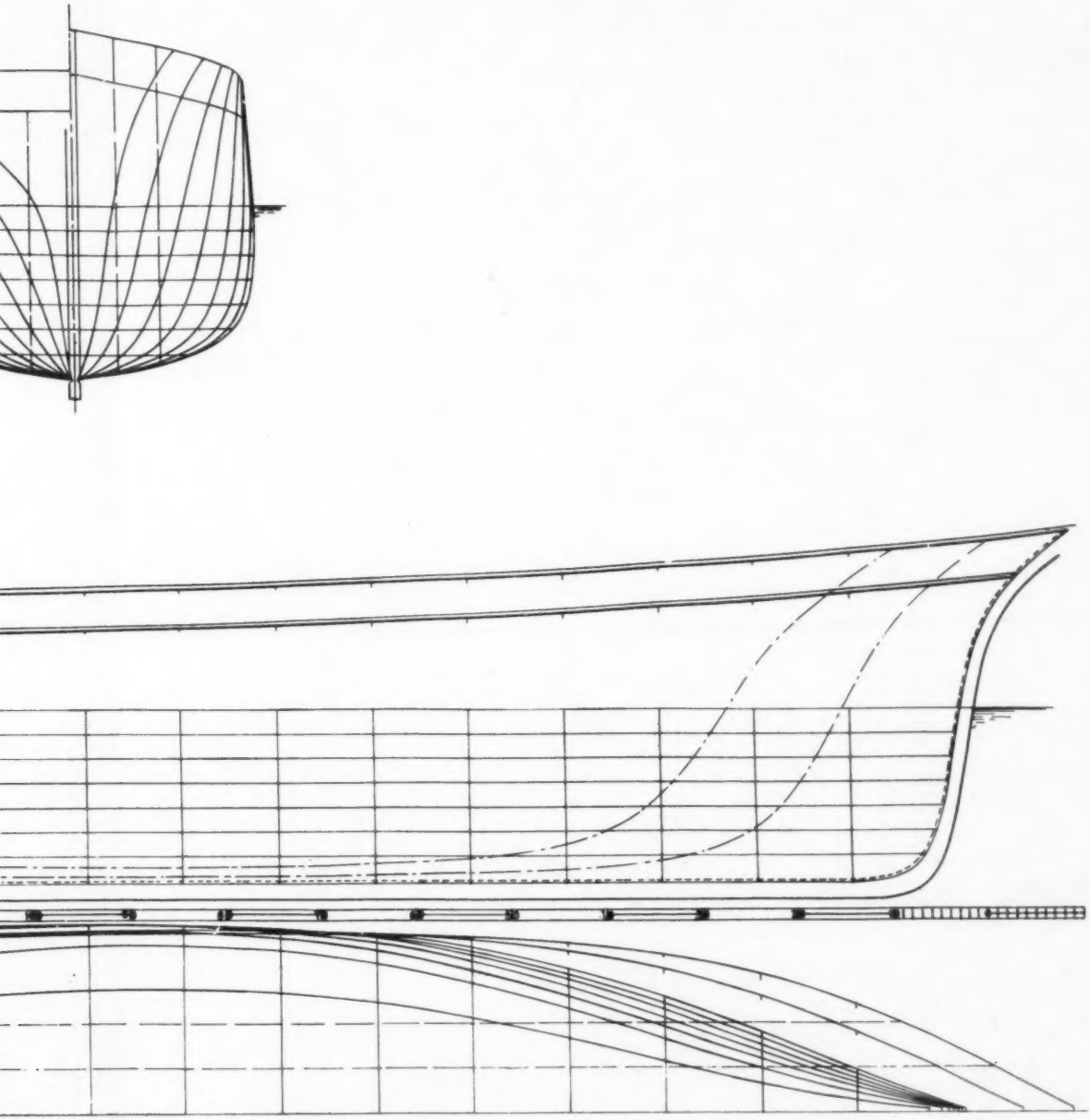

"Flying Fish"

Scale ⅛ inch to a foot

B. Sj. 1251 E.

These lines traced from a reproduction furnished by the Bergen Sjöfartmuseum, Bergen, Norway, to Mr John Lyman, N.R.S. Traced by H.S. Scott, Ottawa, N.R.S. 6/1953

...al retouched or altered, except scale bar, ...n added by J.J. N.R.S. Wilson.

NAUTICAL RESEARCH GUILD★
Dedicated to the Era of Sail
SECRETARY'S MONTHLY LETTER

The Nautical Research Guild is a non-profit organization. The only revenue is from the dues of the members. The Nautical Research Journal is published monthly to members only.

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HARRY D. HAMILTON, SECRETARY-TREASURER, 15004 EAST GRANADA AVE., WHITTIER, CALIFORNIA, U. S. A.

Correct Mr. Nye's address to Hayward, California

Letters to the Secretary

U. S. GOVERNMENT AIDS TO SHIP MODELLERS AND NAUTICAL RESEARCHERS
by Albert C. Wagner.

Historic American Merchant Marine Survey, Frank A. Taylor, National Museum, Washington 25, D. C.

A free catalog is provided listing a series of photos and drawings of all sorts of sailing craft with a few hand propelled and a very few steam craft, of the U. S. Coast divided into 16 districts. Some subjects are covered only by a single sheet of hull lines, some by as many as three sheets and eleven photos. A letter with each catalog warns one that in no case is every detail of a ship covered and no instructions on modelling provided. However, extremely useful and a good modeller with supplementary sources can work out proper plans. Prices 25¢ a sheet and photos at cost.

Contemporary U. S. Navy Ships, Harold J. Cook, Bureau of Ships, United States Navy, Washington 25, D. C.

A list of about thirty blueprints very correct and very detailed on a scale in most cases of 1 - 32 are ready to send out free of cost to any modeller asking for them. They cover the present day navy from battlewagons to small craft, but are all waterline plans, underbodies being confidential information. Others are in preparation and in some cases plans not on the list can be obtained. There is no restriction on their use or sale even and one firm has marketed them with only a warning from the navy that they cannot guarantee their underwater lines. Present day ships only of which they still have the working drawings.

Various Photos, Plans and Documents, National Archives. Address Nautical Section, National Archives, Washington 25, D. C.

Provides a regular service whereby copies of photos, plans and documents can be had. White line on black paper photostats 50¢ a sheet, other items at cost. Their subjects are an almost endless line. Write them and they will tell you if they have it and the price.

Various Photos, Plans and Documents, Library of Congress. Address Reproduction Service, Library of Congress, Washington 25, D. C.

The LOC reproduction service photostats, photographs or microfilms almost anything they have. They can handle stuff from book pages, photos, loose pictures etc. Maximum size 17½ x 23½ inches. Larger subjects taken either by sections or from reduced reproductions of the original. Photographs: $2.00 per negative; prints, if wanted, at approximate commercial prices according to size. Negative photostats, white lines on black background, 45¢ small to 75¢ largest, minimum charge however $1.00. Negative micro-film, 4¢ each for the first thousand, 3¢ each for each additional thousand. They have practically every known bound book on ship's plans

especially the 16 to 1700 stuff. Tiny to moderately big stuff micros fine. The big stuff like De Paris, Chapman and Clark Russell's taken in sections, not so good but usable. They only reproduce stuff already in the Library. Do not send in yours expecting to get it done.

These are the only established regular services. In addition the Coast Guard will furnish blue prints of obsolete or decommissioned ships. These are large scale. No regular service and it is necessary to write them and see what happens. Nothing certain. The U. S. Maritime Commission has a lot of publicity literature which gives partial plans, colored profile drawings and halftone full and partial views of ships in the merchant service. No full plans. This stuff has been used successfully in building miniature waterline models. No charge.

The following libraries are full of information and will answer letters of inquiry, but have no reproduction services beyond what you can coax out of them. If no results on the personal try, take a shot at it thru your congressman.

Navy Department Library
Washington 25, D. C.
National Museum Library (Frank A. Taylor again)
Washington 25, D. C.
Naval Academy General Library
Annapolis, Maryland
Culver Memorial Library, c/o Fred Avery
Museum Shops, U. S. Naval Academy
Annapolis, Maryland

FAST PASSAGES ARE THE RESULT OF FAVORABLE WINDS AND HALF GALES

By Captain Harry Daniel, N.R.G., Montevideo

From a letter to Winston Langdon. This is a very intriguing subject, and likely to be strongly controversial.

Naturally the Wind is the motive power of the sailing ship, and without it no ship could make a fast passage. But there are other factors also, without which no ship would make a fast passage. It is the same with a power-driven vessel; without the power of her engines she would not make a passage, but without the skill of an efficient engineer and reasonably good weather, no great power driven ship would capture the Blue Riband of the North Atlantic. I have known 2 ships built and engined from the same identical plans, give very different working results, simply because of the skill of the engineer in charge. We had 2 ships, both steamships the S.S. "El Uruguayo" and S.S. "La Rosarina". The second always gave better steaming results than the first, with less coal consumption. They changed the chief engineers over, and the working results of the two ships altered immediately. The "El Uruguayo" gave the working result previously achieved by "La Rosarina", while the latter ship fell away and showed a result which the former had previously shown.

With the sailing ship favourable winds and an expert captain were, in my opinion, the factors which resulted in a Fast Passage - even more than the build and lines of the ship. If she met favourable winds and had a Captain who knew where to find them and how to make use of them, that ship would make a passage even if she were built more for comfort than speed. I knew Capt. James Learmont, who took over a great heavy waggon called the Brenda, whom no one ever expected to sail, and a ship that no one had ever expected to sail, and a ship that no one had ever heard of as making a passage, and he did surprisingly well with her. He wrote a book about 18 months ago, called "Master in Sail". Learmont knew where to look for Wind at all times of the year and in all oceans of the world, and he knew how to use the wind when he got it. If he had ever had command of anything like those famous American-built wood clippers of the 1850's, such as Lightning, or Champion of the Seas, I think he would have done

as well, if not better than those seamen who made records with those ships.

The fact that the Man has as much value as a factor in the making of a Fast Passage, is borne out by the passages of the little Tea Clippers home from China. There was little, if anything, to choose between those ships as clippers, but a few of the Captains made consistently fast passages, while others tailed along behind, with similar ships and similar sailing conditions.

Where the size and build of the ship would be a definite factor in the making of a Fast Passage would depend upon the run made. To and from China the little ship of less than 1000 tons would have plenty of moderate winds in which she could carry all sail, and even stunsails. She would ghost along in a light air, where a heavy ship would lie idle.

On the other hand down in high latitudes where winds are strong and seas high and heavy, it is the big heavy ship which makes the best time. The little ship cannot stand up to those conditions, and has to heave to or run under almost bare poles. The big heavy 2000 to 3000 tonner can carry sail and stand up to the hard going.

On one occasion the little British Cutty Sark came up and overhauled the big American Shenandoah in light winds east of Cape Horn. But a few days later, when the ships got down to the Horn and met the force of the west winds and heavy swell, the big Shanandoah reached out into it and left the little Cutty hove to.

Yet I was in a big heavy steel 4-masted bark, Wanderer of Liverpool, carrying nearly 5000 tons of cargo, and in the doldrums, if you threw a chip overboard it would drift astern, showing she had headway and was ghosting along even though we didn't know where the wind was coming from! In the other ships in which I sailed, if there was no wind, the ship stayed put and the chip of wood would lie where it was thrown for an hour or more.

Getting through the Doldrums made a big difference very often on whether a passage was Fast or ordinary; and the lines of the ship helped a lot in the Doldrums.

There is a difference between a Record Day's run and a Record passage. The ship which has the Record Day's Run of 465 miles in 23 hours and 17 minutes, Champion of the Seas, never made a Record Fast Passage in her life.

Lightning, who made 436 miles, only made one Record passage; while the Record Fast Passage of 60 days from England to Melbourne was made by the Thermopylae, little more than half the size of the former two big ships, and she never reached 400 miles a day in her life! That was 80 years ago.

Yet in 1933 two German steel 4-mast barks, Padua and another, went from Hamburg to Australia in 66 days! These 2 ships were almost twice the size of Lightning and the Champion, and were built to carry cargo, not for speed.

So it would seem that Wind is the Principal Factor, with a good Captain who knows how to use it.

From D. L. Dennis--

"Up to the present time my participation in the Guild has been confined to payment of my dues. This has troubled me a little as I sympathize with the purpose of the Guild and realize that the survival of such an organization depends upon the collaboration of its members...."

Note-- Think this over - how about you?

United States Naval Academy, Annapolis, Maryland
The Museum

I have just finished reading "Comments on Query 183" regarding the FAIR AMERICAN by Howard I. Chapelle, in your May issue of the Nautical Research Journal.

Mr. Chapelle is correct in his observation that the wrong scale has been applied to the drawing of the FAIR AMERICAN. The correct scale is 3/8" : 1'-0". The history of the model as we know it was given to Colonel Rogers at the time of its purchase for his collection. I have never been able to find any information to the contrary.

Frederick Avery
Museum Curator, History

ANSWERS TO QUERIES

Answer to Query No. 189 -- Books on the Built-up Ship Model--Answer by Thomas Hornsby. Other articles which deal with the construction of a built-up model include the following: "Building a Model" by Louis Kaufman, Shipmodeler, Feb. - June 1832; "A New Brig Model" by E. A. McCann, Popular Science, March-July 1937; "Sailing Power Boats", June-Oct. 1950 (not actual practice); "The Brig Lexington" by C. M. Levitt; "Handbook for Model Builders," 1950, pub. #112 by Faucett Pub. Co. Inc., Greenwich, Conn.

Answer to Query No. 190 - Turning Small Cannon without Lathe Equipment — Answer by H. O. Williams. Brass and other soft metal as well as wood up to 1/4" dia. is easily turned for small cannon in a carpenter's hand drill (not a brace). The tool is clamped in a vise, then one hand turns the drill with the material to be worked in the clutch. The other hand, steadied with a wood block holds a course (#2 cut) file to the work to carve as required.

Answer to Query No. 191 by Horatio C. Flagg — Muzzle Loading Guns and their Carriages —Answer by Thomas E. Tragle. I went through my files on the subject and suggest to the writer two recent pamphlets which I picked up at the Government Printing Office in Washington. The first is "Artillery Through the Ages" which cost 35¢; the second is "U. S. Frigate CONSTITUTION" which sells for 30¢. The latter is one of the best buys I have come across for a long time. Not only does it give a descriptive history of the CONSTITUTION but in back there is a set of plans which include the drawings of the 24-pounder, 32 pounder carronade, also drawings of the 24 pounder gun carriage. I am sure these books will be most useful.

THE GUILD SLOP CHEST

I have for sale or swap, the following books in good condition:
"Ship Models of the 17th to 19th Centuries" by August Koester. A fine book of photos of ship models. Since someone gave me a copy of Chatterton's book of model photos, I'd like to swap or sell this. Its original price was $10.00.
"How to Make Old Time Ship Models" and "How to make Clipper Ship Models" both by E. W. Hobbs. Both practically new. But since I've more or less settled on making models of small American vessels, such as cutters and fishermen, these are of little use to me. I'd prefer to swap them for material closer to my interest.
Write direct to Jay Williams, RFD #1, West Redding, Conn.

LIST OF SHIP PHOTOS
Morton-Waters Co., 127 Montgomery St., San Francisco, Calif.

I have never been privileged to see the collection of sailing vessel pictures for which Morton-Waters have the negatives.For some time I have tried to get a list of the names of these. Now through the kindness of Glenn Berger, a list has been secured for circulation among the members of the Guild. Mr. Hamilton has suggested that an estimate of the contents of the list would be of value as a guide in deciding whether one should be put on the routing. I hope these remarks will serve.

There are hundreds of the latter day British "Windjammers". Many of these called at San Francisco and may well have been photographed at that port. But there are many that were never there and I would think the negatives are copies or purchased elsewhere.

For persons interested in the "American Merchant Ships" whose histories are described under that title in two volumes by Frederick C. Matthews, the list will be of great interest. I readily found no less than 75 or more of these sailers; many or practically all were in the trade to California or spent their last days in the Pacific Ocean.

The ships that Sewall built of steel at Bath, Maine are listed. The Alaska Packers "Star" fleet are there in full galaxy. There are a few French sailers, very few Germans; just an occasional whaler.

The list has a sprinkling of Atlantic Coast schooner names. There is also a run of names which to my mind suggests some copy work on a famous eastern collection. This list as made up runs to some 812 names. I note the highest serial number is around 850 - perhaps a few negatives have been worn out or been broken.

Personally I must admit the list is a disappointment in that it contains less than a dozen vessels that were built on the West Coast. Of these I got a few through inquiries and they are beautiful; worthy of inclusion in anyone's collection.
Note: This list is by name of ship only - no other description given. Apply to the Secretary for list.

MEETING OF THE NEW YORK GROUP OF THE NAUTICAL RESEARCH GUILD

The last meeting of the season was held at the Seaman's Church Institute on May 21st. The following, selected by a nominating committee of John Shedd and Albert Parsons, were elected for the coming season: President, Frank W. Thober; Vice-President, William Wilkinson; Secretary-Treasurer, Angela Geele.

It was decided to establish a fiscal year beginning in September and to make the dues $1.00 per year to cover the expenses of postage and guests' dinners.

The main part of the program consisted of showing items brought by various members These a wide variety of things, all of considerable interest. Among them were a model and several photos of window displays made by Mr. Dannenberg; a model of a 100 pound naval gun of around 1865 by Mr. Baron; a photograph of the packet ship DREADNOUGHT brought by Mr. B. K. Rogers; several of Charles Rosner's paintings of shipboard scenes brought by Mrs. Klein; photographs of the BOUNTY from motion pictures taken by Mr. Shafer; a book of sketches of coastwise schooners, brought by Mr. Shedd; a model in a bottle and photographs of several other models made by Mr. Johnson; a scrapbook which contained numerous pictures and clippings, and some model tools used by Percy Ashley, brought by Mr. Parsons; a model of a cabin cruiser made by Mr. Wilkinson; a sketch of an albatross in flight brought by Mr. Frost; and two of Mr. Law's miniature models, the MARY CELESTE and a 15th century carrack.

SOME REMARKS FROM LETTERS OF HOWARD I. CHAPELLE

Types to model.

The fishing schooner has been too long assumed of New England interest only and this accounts for some of the recent neglect - and also the majority of models have been made of GERTRUDE THEBAUDS and BLUENOSES, etc., as that is what has been fashionable.A few Pinkies have been built but too few plans are available. We need whaling schooners, stone carriers, sealers, Alaska traders, two-mast coasting schooners and the other odd types which were workaday boats when the California Clippers were the glamour girls.

The Built-up Model.

We are about due for a "built-up shipmodel" rage I think. There has been one in England. Personally I view it with horror for the job of producing a good built-up model requires the knowledge of a contemporary shipbuilder; and who has it? There are three ways a ship could be framed from 1690 to 1850 and right there you have the question of which one. The fitting of the frame members, planking and all the details rise right up and face you and as far as I am concerned we still do not have all the data to build a good solid model in 99% of the available source material.

Ship Lines and Plans.

I have just returned from a visit to the Mariners' Museum, Newport News. As usual I find a lot of very interesting items every time I go there but here are a few that stand out this trip:

1. Half Model of MARCO POLO -- N. B. clipper
2. Half Model of GLORY OF THE SEAS, McKay's last clipper (medium)
3. Lines of NIGHTINGALE, UNIVERSE, QUEEN OF THE WEST, GREAT REPUBLIC, SOVEREIGN OF THE SEAS, and also some Danish clipper ships.

In my own collection I have the lines of three Blackwall frigates-- the ROCHBURGH CASTLE, SHANNON and the LORD WARDEN. I am sorry that I have nothing on the CONWAY - the training ship of our member Captain Leighton Robinson.

A WORD OF APPRECIATION FROM DR. HORACE K. RICHARDSON

Last week I took my file of Journals and re-read into several of them. I wonder if the members realize what a mass of valuable nautical material there is in these Journals. It is really an encyclopedia of nautical history, technique and detail. I wonder if there is another place where one can obtain such a variety of information as in the files of the Nautical Research Journal. I was greatly impressed with it all.

Note: The Journal is published by our members and all credit for this very fine commendation is due the members who have contributed to it.

QUERIES

Query No. 193 - International Code Flags -- When did the International Code flags come into use as a means of identifying ships? When were subsequent changes made in this code? There have been codes known as the 1854 code - the 1858 code - the Boston Harbor Code and Marryat's Code -- also desire some information about the district pennants and the geographical locations of these districts. Where can this information be obtained?

Query No. 194 - Bark Sarah S. Ridgeway — Would appreciate information on this ship- she was built at Wilmington 1877 by Jackson & Sharp (Now American Car and Foundry).

Query No. 195 -- Preble Class Destroyer. I am now doing model work as training aids in the Navy, and am specializing in building naval vessels back to 1900 particularly of the Destroyer Type. I have some rather old plans on a Preble Class Destroyer, but unfortunately there is not enough detail for me to go ahead and build the model. Can

anyone help me locate pictures, data, etc. I am doing model work in the Navy and am pretty well satisfied with the set up. Please reply direct to Thomas E. Tragle, 1707 Betty Lane, Richmond, Virginia.

INTRODUCING NEW MEMBERS

B. MacDonald Steers, Mystic Seaport, Mystic, Conn. Mr. Steers is Assistant Curator of the Marine Historical Association. There is no need to say more but we will tell you what Mr. Steers has to say about his nautical interests. "History, the period of sail. Records of ships, and captains - where to obtain authentic lines, in other words everything that is printed in your Journal. We have to answer a great many research questions of widely divergent types and I know your magazine is going to be worth a lot to me." Mr. Steers was introduced to the Guild by Dr. Bernard Berenson.

Gerald C. Knewston - 2403 North 33rd. Street, Milwaukee, Wisconsin. "The rig and development of work boats interest me greatly - boats for a particular trade or purpose; the handling of large square riggers in narrow waters without the use of tugs. I am also a student of Admiral Lord Nelson in a modest way and write indignant letters to the editor whenever a publication goes off half cocked on Trafalgar or the nefarious doings of the French Fleet and got some of them published too."

Jess M. Laughlin, 2978 Wilshire Blvd., Los Angeles, California. "I am building 1/16" scale models of modern naval vessels, not earlier than World War I, to present. Not particularly interested in sail at this time". If Mr. Laughlin meets through the roster Messrs. Fisher, Howard, Tragle, Nye, and Harold Cook, he will find some kindred souls.

James Wilson, 718 Montecito Drive, San Gabriel, California. "I am interested in more accurate information concerning rigging and deck details of all types of sailing ships. Am at present working on an English "seventy-four". C. 1790. Information on this type is scarce. I am in touch with a group in England that is furnishing me with facts and figures.

Andrew H. Hepburn, 955 Park Square Bldg., Boston 16, Mass. Mr. Hepburn sums up his nautical interests in four words -- "Paintings, Prints, Models and Books". These few words cover the field for all of us. But Mr. Hepburn has a very interesting query which accompanies his application: "I am anxious to get information on the deck and rigging plans of the PASS OF BALMAHA, afterwards known as the SEEADLER. I have a beautifully made model of her but it is not decked and I have no knowledge of the deck plans." It is unfortunate that Count Luckner, who is a friend of Mehrel Shank is now on a globe circling voyage, or we could get some answers to this query. But pass on anything you may have.

Theodore Bankhead, 1115 Circle Drive, Whittier, California. Mr. Bankhead has a 26 ft. sloop the HASTY LADY now at Newport, Calif. He credits his interest in all things nautical to the fact that he was born in the Navy Yard at Bremerton, Wash.; and he has sailed on Puget Sound since a boy. A charcoal drawing, by his brother, of the "Fleet" which was sent around the world in 1907-1909 is his most cherished nautical possession.

John Joseph Donnelly, CPO-USN, Navy Recruiting Station, 346 Broadway, New York. Chief Donnelly simply states that he is a builder of model sailing ships and is also interested in fancy knot work.

Robert W. Schefke, 4003 Argyle St., Chicago 30, Illinois. "Research and model building of men-of-war of period 1600 to 1850." Mr. Shefke also has a query -- "I am contemplating a built up model of CONSTITUTION as originally built. I require a

belaying pin plan for the ship and have had no success in obtaining one. Perhaps some member can tell me where I can get one". In a short list of books of Mr. Schenke, we note that he mentions two by Guild members -- "The American Sailing Navy" by Howard I. Chapelle and "Old Time Ships" by John Stevens.

WOOD FOR SOLID HULL MODELS

Though recent trend is toward the built-up model, we should not overlook the laminated, solid, or bread and butter methods of hull construction. Many modelers like myself, will want to continue with the latter type of construction, even while learning about the built-up hull. Several new modelers have asked me about the wood for this method of solid hull. I have noticed that many have used sugar pine or white pine, which is good, though subject to warping to some extent, and also to worm damage in time. I have also used mahogany, which turned out fine, altho difficult to finish down without leaving grain. One of the finest woods that I have used is California Redwood. It will not warp. It is always straight grained. Takes glue well, easy to work, and worms just do not like it. I will qualify the statement that it is always straight grained and will say - nearly always. Caution must be used in buying in order to get pieces which do not have the laminated ridges in the grain. Pick out the soft dull grained boards. The only drawback is that redwood is rather soft. Just drive your fastenings a little deeper. The price compares with that of white pine and often it is cheaper.

Gam Chair

Job Wanted: "I am not happy here in my work; I would like to make a change to the sea coast - from New Jersey to Massachusetts, to a medium size town - not too small where I can engage in photographic work". Note: This young man did not ask us to run this ad for him. He has been a member of the Guild for three years and we are pleased to pass this along to the members and sincerely trust that some will come through with ideas and/or suggestions. Send all letters to the Secretary.....Jay Williams writes that he has done an article for "True" magazine on ship modeling which includes material on several Guild members--Date of publication not as yet known so look for it in the news stands starting July....Fred Manning of Vancouver is having fine results with a silver soldering kit which he bought for a few dollars from American Products Corp., 422 South Dearborn St., Chicago, Dept. 1C, and also a silver plating solution which can be applied with a cloth, and which can afterwards be oxidized--this from the Silverplate Corporation, 1295 Madison Ave., N. Y. City...Fred also says that his 1/4" model of CUTTY SARK is too big to make aboard ship and has to be a shop job ashore...Saw pictures of two sets of sails which deserve honorable mention--One by Mrs. Ranny Hughes and one by Tom Fitzpatrick's mother. Without doubt there are other ladies in the Guild who can qualify as "Sails"...Jack Claridge is making rapid progress on his model of the EMPRESS OF JAPAN and has also started to build the SICAMONS--a stern wheeler...Miss Angela Geele, the daughter of the master of the Gloucesterman, ELSIE -- compliments upon your election to the job of Secretary-Treasurer of the New York Group of the Nautical Research Guild...A picture from O. W. Howard showing models which can be controlled and operated in a tank--these are controlled by an electronic device which permits rudder control and four speeds ahead and back to a twin screw P.C. and a tug--Used at the Naval Armory in Detroit for training conning officers in ship handling and docking and for helsmen--This picture will be sent to those interested...Margaret Caldwell from 'down Maine' writes she is already making plans for next winter and "they are not to sit here and make patch work"...From Charley Sayle -- look for July 21st issue of "Life" and you will see pictures of Mr. Edouard Stackpole (N.R.G.) Nantucket Historical Society, Charley Lundgren (marine artist) and myself. Some of Mr. Lundgren's work has appeared in the magazine "Yachting". But, how will we know which is which when we have never seen any of you? I am still hoping for those sperm teeth and whalebone from Mr. Boland... Doctor Berenson says it will take a big book to tell all the nautical things he saw and tell about the fine men he met, while on his recent trip East. Be sure to send your change of address--we are holding issues for some.

Date of Mailing: June 12, 1952 Harry D. Hamilton